Theoretical Computer Science
Algorithms, automata, complexity and games

Volume 209, Numbers 1–2, 6 December 1998

Abstracted/Indexed in: ACM Computing Reviews, Compuscience, Computer Abstracts, Current Contents: Engineering, Technology & Applied Science, Engineering Index/Compendex, INSPEC Information Services, Mathematical Reviews, Zentralblatt für Mathematik

Contents

Tutorial

H.L. Bodlaender
A partial *k*-arboretum of graphs with bounded treewidth 1

Fundamental Study

E. Allender, J. Jiao, M. Mahajan and V. Vinay
Non-commutative arithmetic circuits: depth reduction and size lower bounds 47

Contributions

P. Béguin and A. Cresti
General information dispersal algorithms 87

M. Demange, P. Grisoni and V.Th. Paschos
Differential approximation algorithms for some combinatorial optimization problems 107

R.G. Downey and M.R. Fellows
Threshold dominating sets and an improved characterization of $W[2]$ 123

B. Apolloni and C. Gentile
Sample size lower bounds in PAC learning by Algorithmic Complexity Theory 141

L. Aceto, W. Fokkink and A. Ingófsdóttir
On a question of A. Salomaa. The equational theory of regular expressions over a singleton alphabet is not finitely based 163

F. Blanchard and P. Kůrka
Language complexity of rotations and Sturmian sequences 179

L. Gargano and A.A. Rescigno
Communication complexity of fault-tolerant information diffusion 195

E. Csuhaj-Varjú and A. Kelemenová
Team behaviour in eco-grammar systems 213

M. Zimand
On the size of classes with weak membership properties 225

E. Amaldi and V. Kann
On the approximability of minimizing nonzero variables or unsatisfied relations in linear systems 237

L. Vuillon
Combinatoire des motifs d'une suite sturmienne bidimensionnelle 261

C. Rössner and J.-P. Seifert
On the hardness of approximating shortest integer relations among rational numbers 287

M. Beaudry
Languages recognized by finite aperiodic groupoids 299

G. Vaszil
On simulating non-returning PC grammar systems with returning systems 319

C.J. Colbourn and G. Xue
A linear time algorithm for computing the most reliable source on a series–parallel graph with unreliable edges 331

E. Malesińska and A. Panconesi
On the hardness of allocating frequencies for hybrid networks 347

Notes

D. Breslauer
On competitive on-line paging with lookahead 365

T. Downarowicz and Y. Lacroix
Merit factors and Morse sequences 377

R. Sengupta and H. Venkateswaran
A lower bound for monotone arithmetic circuits computing 0–1 permanent 389

Author index volume 209 399